South Carolina Enterprise Information System (SCEIS)

Organization Technical Infrastructure Readiness

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Introduction

The Agency Technical Infrastructure Readiness document is an outline of the responsibilities, activities and requirements necessary for an Agency's successful connectivity to the SAP production environment at the DSIT Data Center.

Each Agency is ultimately responsible for fulfilling all the requirements necessary for secure connection to the SAP landscape at the DSIT Data Center. It is the responsibility of the Deployment team to communicate those requirements, assess the current environment at the Agency and assist the Agency in identifying the gaps that currently exist.

User Classification and Access Methods

Potentially, every Agency employee may need to access some applications within SCEIS/SAP. With the rollout of Employee Self Service (which is part of the SAP Human Resources Module) every state employee may have access.

Classification of users at each Agency is dependent on their job function within SCEIS/SAP:

- All users will at a minimum need internet access

- All employees utilizing Employee Self Service(ESS) will connect via the SAP Portal (web-based application)

- All employees utilizing the Supplier Relationship Management (SRM) Module will do so via the SRM web application. Generally these users are Agency procurement staff members or other individuals authorized by the Agency to use the module.

- Employees who need access to the Enterprise Core Component (ECC) Module will do so via the Internet utilizing Citrix. Citrix is discussed in further detail later in this document. These users are from these areas of the Agency: Finance, budget, grants, payroll, procurement and HR.

- Employees needing access to the BEX Analyzer (reporting application) and all imaging users will do so via the Internet utilizing Citrix.

The SCEIS Team will assist the Agency in identifying the Agency users and their roles in the system.

Citrix

Citrix Presentation Server will allow users in agencies to access the SAPGUI "fat client" via web based access. This translates into a much leaner configuration required at each agency. Desktop computing requirements and bandwidth requirements are much less stringent than alternative connection possibilities. Agencies will be given instructions on the Citrix Client installation and testing requirements.

Agency Technical Requirements

The Agency Technical Requirements are designed to ensure compliance with the infrastructure as designed.

Desktop Equipment and OS

The SCEIS Project will support connectivity based on the following *minimum* standards:

Minimum Desktop and Laptop Requirements	
Processor:	Pentium IV compatible
Memory:	512 MB RAM
Storage:	Client installation is minimal (14.76Mb)
OS:	Windows XP
Browser & Related Apps:	Internet Explorer 7, Java Runtime Environment 1.5, Adobe Acrobat Reader Version 8.1 (9.1 recommended)
Monitor:	17", 1024x768 res., 256 colors (recommendation only)

Firewall Considerations

Citrix Independent Computing Architecture (ICA) traffic utilizes port 443. Some shopping cart applications in use by some of the vendors that are part of the Supplier Relationship Management (SRM) module of SAP utilize port 5443.

Licenses Required

A current Windows Client Access License is required for each user. Citrix licenses are also required for each user that will be accessing the Enterprise Core Component (ECC) module in SAP. Users of the BEX Analyzer (SAP's Reporting tool) and imaging users will also need Citrix. The number of Citrix licenses has been preliminarily determined for each agency but will be adjusted during roll out as more information becomes available. Citrix licenses will be provided by the SCEIS Project. Installation of Citrix may be accomplished through the use of simple, on-line executables.

Bandwidth Recommendations

Since SCEIS/SAP connectivity is entirely internet reliant, Agencies need to consider the effect that will have on bandwidth requirements. The example that follows is strictly related to Citrix bandwidth utilization.

A typical Presentation Server user will utilize approximately 20kbps. Network links for Citrix Presentation Server deployments can typically be sized as presented below:

Multiply the total bandwidth available (Committed Information Rate) by 80% (to prevent full bandwidth saturation). Subtract the bandwidth needed for all other traffic types (VOIP, FTP, etc). The resulting number is the amount of bandwidth left for Citrix sessions. Divide that number by 20 to determine how many Presentation Server users can be supported on that link concurrently.

Example: T1 = 1500 kbps x .80 = 1200 kbps – 200 kbps for VOIP = 1000 kbps/20 kbps = 50 concurrent users

Imaging

An imaging system has been selected that conforms to the security measures to facilitate secure access to the SCEIS system. Necessary scanning software will be provided by SCEIS. The SCEIS Imaging team will work with agencies to determine what types of scanners are appropriate for each agency.

Minimally, scanners must be TWAIN or ISIS compliant and sized appropriate to expected volumes.

Printing

Printing also requires special considerations when printing from a centralized system to decentralized printers. With the use of Citrix, most if not all of these considerations are overcome.

Users will be able to print locally through Citrix interface to any printer currently mapped to the user's local workstation.

Testing

The Deployment team will coordinate, in conjunction with the agency technical leads, testing appropriate to each agency's usage requirements. This will be accomplished well ahead of the anticipated Go-Live date.

Accessibility

The SCEIS Project intends that the ERP solutions being delivered are accessible to all end users. The SCEIS Project team will assess each agency's particular needs for its employees requiring access through assistive technologies. The SCEIS Project team, in cooperation with the agency, will determine the best connectivity solution in order to support the assistive technology currently utilized by all agency employees.